## UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

PATENT NO. : 8,009,660 B2 Page 1 of 2

APPLICATION NO. : 10/583530

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INVENTOR(S) : Xiaodong Li et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item (54), in column 1, in "Title", line 1, delete "METHODS" and insert -- METHOD --, therefor.

In column 1, line 1, delete "METHODS" and insert -- METHOD --, therefor.

In column 4, line 6, below "slots."

insert -- As depicted in FIG. 1, in a multi-carrier communication system, a generic transmitter may consist of the following functional blocks:

- 1. Encoding and modulation 108
- 2. Pilot generation and insertion 106
- 3. Inverse fast Fourier transform (IFFT) 110
- 4. Transmission 112 --.

In column 5, line 55, delete " 
$$2\pi f_i \Delta t = \arg\{s_i(k)s_i(k+1)\} - \beta_i$$
" and insert -  $2\pi f_i \Delta t = \arg\{s_i^*(k)s_i(k+1)\} - \beta_i$  --, therefor.

In column 9, line 37, in claim 1, delete "cells, and," and insert -- cells, --, therefor.

In column 9, line 60-61, in claim 3, delete "  $2\pi f_i \Delta t = \arg\{s_i^*(k)s_i(k+1)\} - \beta_i$ ," and insert --  $2\pi f_i \Delta t = \arg\{s_i^*(k)s_i(k+1)\} - \beta_i$  --, therefor.

In column 9, line 63, in claim 3, delete "  $A\Delta t << a$ " and insert --  $\Delta t << a$  --, therefor.

Signed and Sealed this Twentieth Day of December, 2011

David J. Kappos

Director of the United States Patent and Trademark Office

## CERTIFICATE OF CORRECTION (continued) U.S. Pat. No. 8,009,660 B2

In column 9, line 67, in claim 3, delete " 
$$\phi_{i,m}(t_k) = \phi_{8,m}(t_{k+1}) + \beta_i$$
, and insert -  $\varphi_{i,m}(t_k) = \varphi_{i,m}(t_{k+1}) + \beta_i$ , therefor.

In column 10, line 38, in claim 4, delete " $\Delta f = f_n = f_i$ ;" and insert --  $\Delta f = f_n - f_i$ ; --, therefor.

In column 10, line 51, in claim 5, delete " 
$$\phi_{l,m}(t_k) = \phi_{i,m} + \beta_{l,m}$$
" and insert --  $\varphi_{l,m}(t_k) = \varphi_{l,m}(t_{k+1}) + \beta_{l,m}$ , therefor.

In column 10, line 52, in claim 5, delete " 
$$-\pi \le \beta_i \le \beta \pi$$
" and insert --  $-\pi \le \beta_i \le \pi$  —, therefor.

In column 10, line 47, in claim 21, delete "on" and insert -- on the --, therefor.